

CLAIMS:

WHAT IS CLAIMED IS:

1. Apparatus for forming an article from a blank of sheet metal comprising:
  - a first die member having a cavity formed therein;
  - means for producing a magnetic field disposed adjacent the cavity in said die for restraining movement of the blank of sheet metal;
  - a second die member mounted for reciprocal movement toward and away from the cavity formed in said first die member;
  - means for imparting selective reciprocal movement of said second die member; and
  - control means for selectively energizing said means for producing a magnetic field to restrain movement of the blank of sheet metal during the reciprocal movement of said second die.
2. The invention defined in Claim 1 wherein said means for producing a magnetic field includes a plurality of electromagnets.
3. The invention defined in Claim 1 wherein said cavity includes an open end.
4. The invention defined in Claim 1 wherein said means for producing a magnetic field includes a plurality of electromagnets.
5. The invention defined in Claim 4 wherein said cavity includes an open end.
6. The invention defined in Claim 5 wherein said electromagnets are disposed in spaced relation about the open end of said cavity.

7. The invention defined in Claim 4 wherein said control means includes a microprocessor for controlling the strength of the magnetic field produced by said electromagnets.

8. The invention defined in Claim 7 wherein said control means includes a source of power coupled to said electromagnets through said microprocessor.

9. The invention defined in Claim 8 wherein said control means includes armature means cooperating with said electromagnets.

10. The invention defined in Claim 9 wherein said armature means includes a separate armature with each of said electromagnets.

11. Method for forming an article from a blank of sheet metal including the steps of:

- providing a first die member having a cavity formed therein;
- disposing a plurality of electromagnets spaced relation about the cavity in said die for restraining movement of the blank of sheet metal;
- positioning a blank of sheet metal over the cavity of said first die member;
- providing a second die member mounted for reciprocal movement toward and away from the cavity formed in said first die member;
- providing means for imparting selective reciprocal movement of said second die member; and
- selectively energizing said electromagnets to restrain movement of the blank of sheet metal during the reciprocal movement of said second die.